

REMARKS

Reconsideration and allowance are respectfully requested in view of the foregoing amendments and the following remarks.

Claims 1, 3-11, 23-25, and 27-32 are now pending in this application.

Claims 2, 12-18, and 26 have been cancelled in this amendment.

Section 112 Rejection

The Examiner rejected claims 23-26 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicants regard as their invention.

With the exception of claim 26, which has been cancelled, claims 23-25 have been amended to overcome the §112 rejection. In particular, Applicants have deleted the word "certain" and replaced it with the word "predetermined" state. Thus, the processor state is positively set forth to provide antecedent basis for subsequent references to any one of the processor states, as suggested by the examiner. Applicants respectfully submit that claims 23-25 are now definite and particularly point out and distinctly claim the

subject matter which the Applicants regard as their invention. Applicants respectfully request the Examiner to withdraw the §112 rejection.

Section 102 Rejections

The Examiner rejected claims 1-5 and 12-16 under 35 U.S.C. §102(b) as being anticipated by Bruce, Jr. et al. The Examiner correctly pointed out that the Applicants have argued that the instant invention is directed to "overriding a masked interrupt" but neglected to claim such a device. (See page 4 of the June 6, 1994 Office Action.) Applicants have amended claims 1-5 to require that the apparatus be for disabling a masked interrupt. That is, claim 1 has been amended to require "a means for unmasking said masked interrupt in response to the assertion of said interrupt request signal and at least one of said indicated software condition and said indicated hardware condition".

Applicants are aware of the apparatus described in Bruce, Jr. et al. and discussed such a processor in the History of the Prior Art portion of the originally filed application. That is, Bruce, Jr. et al. teaches a device wherein "if the interrupt [to the processor] is masked the latch gets reset and the processor simply continues with the sequencing of instructions without servicing the

interrupt". Col. 1, lines 59-62. Conversely, the present invention has the capability of unmasking a masked interrupt thereby allowing an interrupt signal to "interrupt" a microprocessor and discontinue the processing of a set of instructions in order to start the processing of a different set of instructions based on the interrupt signal when the processor is in a predetermined state and all the interrupts are masked. Thus, Bruce, Jr. et al. does not teach, allude to or anticipate the present invention.

Applicants respectfully submit that claims 1-5 (12-16 have been cancelled) are therefore not anticipated by Bruce, Jr. et al. based on the above discussion and are ready for allowance. Applicants respectfully request the Examiner to withdraw the §102 rejection of amended claims 1-5.

The Examiner rejected claims 23-26 under 35 U.S.C. §102(e) as being anticipated by Kass et al. Applicants have carefully amended claim 23 to claim first, second, and third subcircuits which operate together to unmask a masked interrupt of a microprocessor when the microprocessor is in a predetermined state and all of its interrupts are masked. Applicants further note that FIG. 2A and col. 4, lines 59-68 of Kass, as indicated by the Examiner, do not teach an apparatus for unmasking a masked interrupt. Indeed, the

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circuit of Kass teaches a circuit which decides whether or not to submit an interrupt signal to a microprocessor, not whether to unmask a masked interrupt. Furthermore, the circuitry taught in Kass is entirely different than that claimed in amended claim 23. That is, in Kass, FIG. 2A, the NOR circuit 44 does not receive a signal indicating whether the processor is in a predetermined state. Furthermore, NOR circuit 46 of Kass does not receive a first interrupt request signal via Flip-flop 58. Applicants submit that claims 23-25 (claim 26 has been cancelled) as amended are not anticipated by Kass and therefore respectfully submit that claims 23-25 are ready for allowance. Applicants respectfully request that the Examiner withdraw the §102 rejection.

New Claims

Applicants appreciate the Examiner's statement that claims 6-11 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Applicants have added new independent claim 27 which, in essence, is claim 6 rewritten to include the base claim, 1, and all the intervening claims. Applicants respectfully submit that claim 27 is ready for allowance.

Claims 7-11 are now either directly or indirectly dependent on new claim 27 and are therefore respectfully submitted to be ready for allowance.

New claims 28-32 are directly or indirectly dependent on amended claims 1-5 and further claim novel aspects of the present invention. Applicants submit that these claims are ready for allowance.

In view of the above amendments and remarks, reconsideration and allowance of claims 1, 3-11, 23-25, and 27-32 is believed to be warranted, and a Notice to such effect is earnestly solicited.

Respectfully submitted,

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Date:

Oct 6, 1994

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